PHILIPS

FW- **P78**

Mini Hi-Fi System
with 3 CD changer

energy ☆

PHILIPS

Let's make things better.

México

NOM·135·NYCE

Es necesario que lea cuidadosamente su instructivo de manejo.

PRECAUCIÓN - ADVERTENCIA
No abrir, riesgo de choque eléctrico
ATENCIÓN
**Verifique que el voltaje de alimentación
sea el requerido para su aparato**

**Para evitar el riesgo de choque eléctrico, no quite la tapa.
En caso de requerir servicio, dirijase al personal calificado.**

Descripción: . . . . **Minisistema de Audio**
Modelo : **FW-P78**
Alimentación: . . . . **110–127/220–240 V; ~50–60 Hz**
Consumo: . . . . **145 W**
Importador: . . . . **Philips Mexicana, S.A. de C.V.**
Domicilio: . . . . **Norte 45, # 669, Col. Industrial Vallejo**
Localidad y Telefono: . . . . **C.P. 02300 México D.F., Tel. 7284200**
Exportador: . . . . **Philips HK, Ltd.**
País de Origen: . . . . **China**
Nº de Serie: . . . . _____

**LEA CUIDADOSAMENTE ESTE INSTRUCTIVO
ANTES DE USAR SU APARATO.**

English

Français

Español

中 文

**CLASS 1
LASER PRODUCT**

3

CONTENTS

English

4

IMPORTANT:
PLEASE NOTE THAT THE
VOLTAGE SELECTOR
LOCATED AT THE REAR OF
THIS SYSTEM IS PRESET AT
220V FROM THE FACTORY.
FOR COUNTRIES THAT
OPERATE AT 110V, PLEASE
ADJUST TO 110V BEFORE YOU
SWITCH ON THE SYSTEM.

General Information

- *The type plate (which contains the serial number) is located at the rear of the system.*
- *Recording is permissible if copyright or other rights of third parties are not infringed.*

Environmental Information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Energy Star

energy

As an ENERGY STAR® Partner; Philips has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Acknowledgement

DOLBY SURROUND
P R O • L O G I C

Dolby Pro-Logic and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Manufactured under license from Dolby Laboratories Licensing Corporation.

Accessories *(Supplied)*

– Remote control
– Batteries (two AA size) for remote control
– AM loop antenna
– FM wire antenna
– AC power cord
– CS-340 speaker package (includes one pair of surround speakers and one center speaker)

Safety Information

- Before operating the system, check that the operating voltage indicated on the typeplate (or the voltage indication beside the voltage selector) of your system is identical with the voltage of your local power supply. If not, please consult your dealer. The typeplate is located at the rear of your system.
- When the system is switched on, do not move it around.
- Place the system on a solid base (e.g. a cabinet).
- Place the system in a location with adequate ventilation to prevent internal heat build-up in your system. Allow at least 10 cm clearance from the rear and the top of the unit and 5 cm from the each side.
- The system incorporates a built-in safety feature that prevents overheating.
- Do not expose the system to excessive moisture, rain, sand or heat sources.
- Under no circumstances should you repair the system yourself, as this will invalidate the warranty!
- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens of the CD unit inside the system. Should this occur, the CD player will not operate normally. Leave the power on for about one hour with no disc in the system until normal playback is possible.
- Electrostatic discharge may cause unexpected problems. See whether these problems disappear if you unplug the AC power cord and plug it in again after a few seconds.
- **To disconnect the system from the power supply completely, remove the AC power plug from the wall socket.**

5

Rear Connections
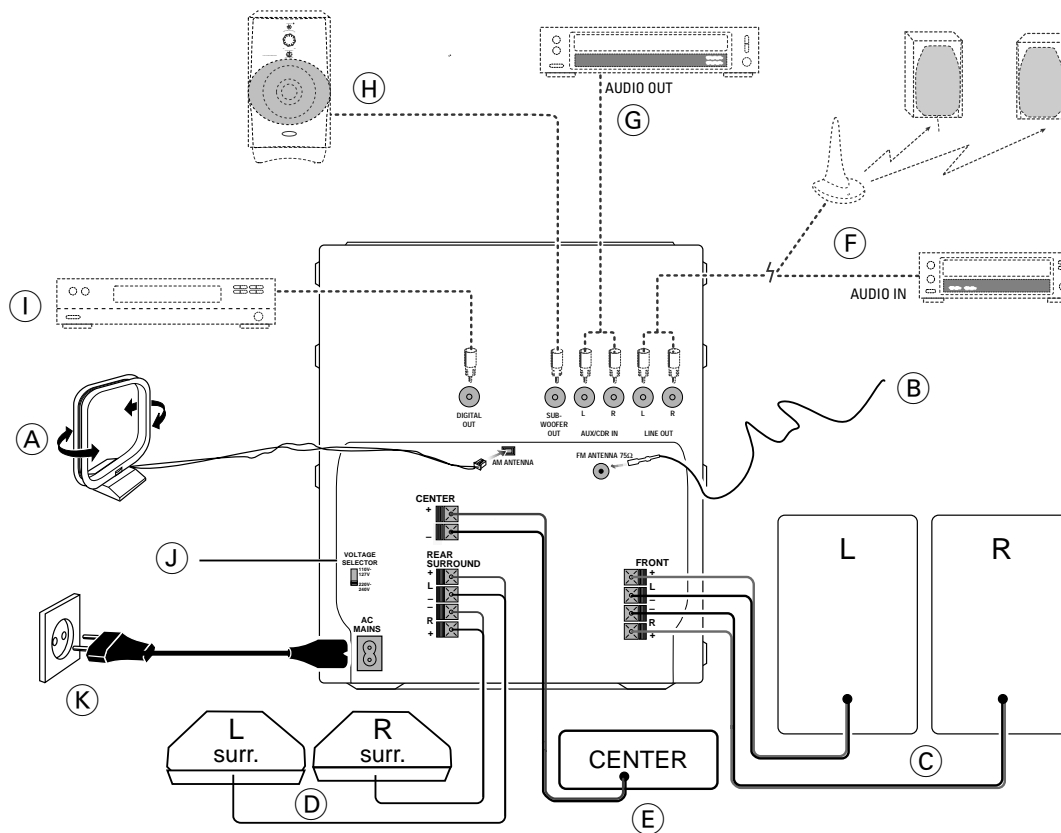
Ⓐ AM Loop Antenna Connection

Connect the supplied loop antenna to the AM ANTENNA terminal. Place the AM loop antenna far away from the system and adjust its position for the best reception.

Ⓑ FM Wire Antenna Connection

Connect the supplied FM wire antenna to the FM ANTENNA 75 Ω terminal. Adjust the position of the FM antenna for the best reception.

Outdoor Antenna

For better FM stereo reception connect an outdoor FM antenna to the FM ANTENNA 75 Ω terminal using a 75 Ω coaxial wire.

Ⓒ Speakers Connection

- Connect the right speaker to Front terminal R, with the colored wire to ＋ and the black wire to － .
- Connect the left speaker to Front terminal L, with the colored wire to ＋ and the black wire to － .
- Clip the stripped portion of the speaker wire as shown.

12 mm

unlock   lock
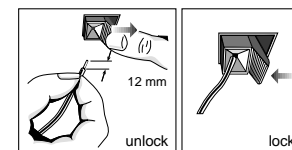
CAUTION:

– *For optimal sound performance, it is recommended to use the supplied speakers.*
– *Do not connect more than one speaker to any one pair of* + / − *speaker terminal.*
– *Do not connect speakers with impedance lower than the speakers supplied. Please refer to SPECIFICATION section of this manual.*

Ⓓ **Rear Surround Speakers' Connection**

Connect the black (non-marked) wires to the black REAR SURROUND terminals and the colored (marked) wires to the grey REAR SURROUND terminals.

Ⓔ **Center Speaker Connection**

Connect the black (non-marked) wires to the black CENTER terminal and the blue (marked wires) to the blue CENTER terminal.

Ⓕ **Line Out Connection** *(wireless ready)*

You can connect the audio left and right LINE OUT terminals to a optional CD Recorder ANALOG IN terminals. This allows you to record in an analogue format.

You can also install additional optional front active speakers away from the system (e.g. in another room) to reduce the inconvenience of running long speaker wires across rooms. You can place as many remote speakers as you like provided they operate at the same radio frequency. Connect the wireless radio frequency transmitter to the LINE OUT terminals. Place the active speakers at your preferred location. Be sure to follow the instructions supplied with the active speakers.
Note:
– *Availability of wireless transmitter and its peripherals are subjected to the approval of local authorities. Please check with respective local safety or approving authority.*

Ⓖ **Connecting other equipment to your system**

You can connect the audio left and right OUT terminals of a TV, VCR, Laser Disc player, DVD player or CD Recorder to the AUX/CDR IN terminals at the rear of the system.

Ⓗ **Subwoofer Out Connection**

Connect the optional active subwoofer to the SUBWOOFER OUT terminal. The subwoofer reproduces just the low bass sound effect (e.g. explosions, the rumble of spaceships, etc.). Be sure to follow the instructions supplied with the subwoofer.

Ⓘ **Digital Out Connection**

You can record the digital sound from the CD, through this output, on any audio equipment with digital input (e.g. CD Recorder, Digital Audio Tape (DAT) deck, Digital to Analog Converter and Digital Signal Processor).

Connect one end of the cinch cable (not supplied) to the DIGITAL OUT socket and the other end to the audio equipment with digital input.When connecting the cinch cable, make sure it is fully inserted.

Ⓙ **Adjusting the Operating Voltage** *(not available for all versions)*

Before connecting the AC power cord to a wall outlet, make sure that the voltage selector at the rear of the system is set to the local power line voltage. If not, reset the selector before connecting to the wall outlet.

Ⓚ **AC Power Supply**

After all other connections have been made, connect the AC power cord to the system and to the wall outlet.

Inserting batteries into the Remote Control

- Insert the batteries (Type R06 or AA) into the remote control as shown in the battery compartment.
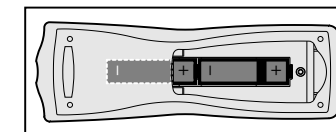
- To avoid damage from possible battery leakage, remove dead batteries or batteries that will not be used for a long time. For replacement, use type R06 or AA batteries.

7

Dolby Pro Logic

This state of the art Dolby Pro Logic mini system enables you to experience and enjoy a Home Cinema sound ambience. The Pro Logic system allows more accurate definition of the individual sound sources. It produces greater sound separation between channels and provides pinpoint sound localization. Pro Logic provides four sound outputs: Left, Center, Right and Surround (Rear). Front sounds are produced from the pair of Left and Right speakers and a Center speaker. The surround sound is reproduced by two speakers placed at the rear of the listening area. Although the surround sound is monaural (single-source), a pair of speakers is necessary to produce the correct diffused sound.

This Pro Logic decoder enables you to decode the following modes: *Dolby Surround, Center Phantom, Dolby 3 Stereo* or *normal Stereo*.

Setting up the Dolby Pro Logic system

You must set up the system properly in order to enjoy the Home Cinema sound to the fullest. First, connect the speakers.
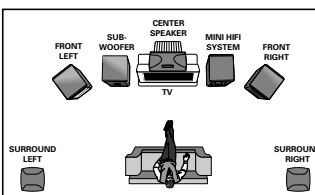
5-Speaker Connection
- *Front speakers:* Connect the front speakers.
- *Center speaker:* Connect the center speaker.

- *Rear (surround) speakers:* Connect either the wired rear surround speakers or a pair of wireless rear speakers (not supplied) to the SURROUND OUT terminals.
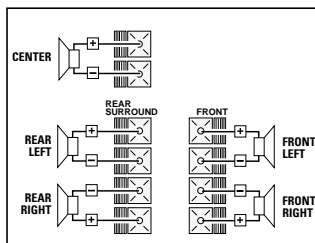
Positioning the Speakers

To get the best surround sound effect, place the speakers as follows.

Front Left and Right Speakers

For the best sound, place the Left and Right speakers at an angle of approximately 45 degrees to the listener. If the speakers' magnetic field affects the television picture, increase the distance between the TV and the speakers.

Center Speaker

For the best sound, place the center speaker at the same height as the left and right speakers. Place the center speaker directly above or beneath the television.

Rear (surround) Speakers

The surround speakers should be placed at normal listening ear level or mounted on the wall at the back of the room. Most important, experiment when placing the surround speakers in order to obtain the best sound.

Test Tone

This feature enables you to adjust the Front Left, Front Right, Center and Surround Sound levels of the respective speakers in Dolby Pro Logic mode.

You must sit at the ideal sitting position and use the remote control to perform this operation.

1 Press **CD**, **TUNER**, **TAPE** or **AUX** to switch on the system.
2 Press **TEST TONE**.
   → A test signal is generated; it will move through the Left, Center, Right, and Surround speakers, in that order.
   → "TEST TONE" followed by "ADAPT BALANCE, CENTER AND REAR LEVEL" will be displayed.
   → The test signal will last for about 90 seconds.

3 Press **BALANCE L** to adjust the sound of the front left speaker.

   → The display will show "BAL L+XX".
4 Press **BALANCE R** to adjust the sound of the front right speaker.
   → The display will show "BAL R+XX".
5 Press **CENTER +** or **—** to adjust the sound of the center speaker.
   → The display will show either "CENT +XX or -XX".
6 Press **REAR +** or **—** to adjust the sound of the surround speakers.
   → The display will show either "REAR +XX or -XX".
7 Adjust the sound of all the speakers until they are equal. When you are satisfied with the setting, press **TEST TONE** again to switch off the test signal.
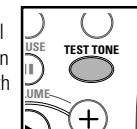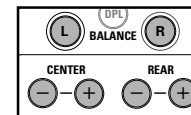
Note:
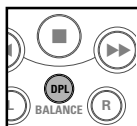– It is advisable to set the speakers' level at normal listening level. "XX" denotes the sound level.

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When you have completed the Dolby Pro Logic setup, you are ready to enjoy Home Cinema sound.

- Press **DPL (PRO LOGIC)** repeatedly to select and cycle through the various sound modes.

  Dolby Surround → Center Phantom → Dolby 3 Stereo → Stereo → Dolby Surround …

  → The Dolby Pro Logic display panel will light up with the selection.

Dolby Surround

This setting is for a full Dolby Surround Pro Logic mode.

- Press **DPL** to select the Dolby Surround mode.
  → The message "DOLBY SURROUND" will be displayed.
  → The DPL display panel will light up.

Dolby Center Phantom

This setting is for use without the center speaker. It redistributes the center speaker sound to the left and right speakers, providing conventional stereo across the front.

- Press **DPL** to select the Dolby Pro Logic Center Phantom mode.
  → The message "CENTER PHANTOM" will be displayed.
  → The DPL display panel will light up.
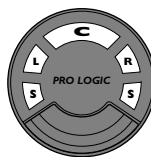
Dolby 3 Stereo

Use this setting when full surround is not required, but a wide stereo sound is desired. It only requires the left, right and center speakers.

- Press **DPL** to select the Dolby 3 Stereo mode.
  → The message "DOLBY 3 STEREO" will be displayed.
  → The DPL display panel will light up.

Normal Stereo

This setting is for normal stereo sound without Dolby Pro Logic. It only requires the left and right speakers.

- Press **DPL** to select the Stereo mode.
  → The message "STEREO" will be displayed.
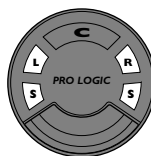 → The DPL display panel will light up.

Important!
1. *For the best Dolby Pro Logic sound, switch on DPL with DSC set to "Classic".*
2. *Dolby Pro Logic mode will automatically switch to normal Stereo mode when headphones are connected.*
3. *Switch to normal stereo mode when you record on a tape.*

English

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CONTROLS

DISC CHANGE   OPEN•CLOSE

13   14

DISC 1   DISC 2   DISC 3

12

11   3CD CHANGER

10

MINI HIFI SYSTEM

2   PROGRAM TIMER   18   63:25 CD

OPTIMAL TECHNO ROCK   60Hz 250Hz 500Hz   1KHz 2.5KHz 6KHz   FRONT VOCAL JAZZ CLASSIC   C L R

DBB PRO   PRO LOGIC   S

1   STANDBY ON

9   CLOCK/ TIMER

8   CD1•2•3   BAND   TAPE 1•2   CDR / VIDEO   DOLBY SURROUND PRO•LOGIC

PROG   CD   TUNER   TAPE   AUX   A.REV   KARAOKE

7   SEARCH • TUNING   STOP•CLEAR PLAY PAUSE   ▼ PRESET ▲ PREV SIDE NEXT

6   DUB HIGH SPEED   ◄◄ ►►   ■ ► ►II   I◄ ►I

5   REC   SOUND NAVIGATION   MIC LEVEL

4   DIGITAL SOUND CONTROL   DYNAMIC BASS BOOST   MIC

3

27   OPEN   OPEN   24

26   TAPE 1   TAPE 2   25

15
16
17

19

20

21

22

23

Remote Control

15   TV   CD   TUNER   TAPE 1/2   AUX   36

12   CD DIRECT   1   2   3   35

3   DSC   DBB   SLEEP TIMER   8

23   REPEAT   SHUFFLE   PROGRAM   34

28   MUTE   PAUSE   TEST TONE   33

29   VOLUME   19

22   —   +   22

19   I◄   ►I   19

19   TV VOL   ■   TV VOL   19

30   ◄◄   ►►   17

DPL BALANCE   L   R

31   CENTER   REAR   32

10

Controls on the system and remote control

1 STANDBY ON
– to switch the system on or to standby mode.
– to use for EASY SET.

2 LOW POWER STANDBY LED
– lights up during low power standby.

3 DIGITAL SOUND CONTROL (DSC)
– to select the desired sound effect : OPTIMAL, CLASSIC, TECHNO, JAZZ, ROCK or VOCAL.

4 ∩
– to connect headphones.

5 REC (RECORD)
– to start recording on tape deck 2.

6 DUB (HIGH SPEED DUBBING [HSD])
– to dub a tape in normal or fast speed.

7 JOG
– to select the desired equalizer display.
– to select the desired DSC setting. You must select the DSC feature first.

8 PROG (PROGRAM)
for CD .... to program CD tracks.
for TUNER ..... to program preset radio stations.
for CLOCK ..... to select 12 or 24 hour in clock setting mode (on the system only).

9 CLOCK/TIMER
– to view the clock, set the clock or set the timer.

10 DISPLAY SCREEN
– to view the current setting of the system.

11 CD CAROUSEL TRAY

12 DISC 1 / DISC 2 / DISC 3 (CD DIRECT PLAY)
– to select a CD tray for playback.

13 DISC CHANGE
– to change CD(s).

14 OPEN•CLOSE
– to open or close the CD carousel tray.

15 SOURCE – to select the following:
CD / (CD 1•2•3)
– to select CD mode. When CD playback is stopped, press to select disc tray 1, 2 or 3.
TUNER / (BAND)
– to select Tuner mode. When in tuner mode; press to select the waveband: FM or MW.
TAPE / (TAPE 1• 2)
– to select Tape mode. When tape playback is stopped, press to select either tape deck 1 or 2.
AUX / (CDR/VIDEO)
– to select sound from an external source (e.g. TV, VCR, Laser Disc player, DVD player or CD Recorder). When in Aux mode, press to select either AUX or CDR.
TV (only on the remote control)
– to select TV mode.

16 DPL DISPLAY PANEL
– to view the selected Dolby Pro Logic setting.

17 DOLBY PRO LOGIC (DPL)
– to select Dolby Surround, Dolby Center Phantom, Dolby 3 Stereo or Stereo mode.

18 A. REV (AUTO REVERSE)
– available in tape deck 2 only.
– to select the desired play modes (⊐ / ⊃ / ⊂⊃).

19 MODE SELECTION
SEARCH ◄◄ ►► (TUNING ◄◄ ►►)
for CD .... to search backward/ forward.
for TUNER ..... to tune to a lower or higher radio frequency.
for TAPE .... to rewind or fast forward a tape.
for CLOCK ..... to set the hour (on the system only).
for TV VOL. .... to adjust the TV volume if the remote operates your TV.

STOP•CLEAR ■
for CD .... to stop CD playback or to clear a program.
for TUNER ..... to stop programming.
for TAPE .... to stop playback or recording.
for DEMO ...... (on the system only) to start or stop demonstration mode.

PLAY ► / PAUSE II
for CD .... to start or interrupt playback.
for TAPE .... to start playback.

I◄ PREV / SIDE / NEXT ►I (PRESET ▼ ▲)
for CD .... to skip to the beginning of the current, previous, or next track.
for TUNER ..... to select a preset station in memory.
for TAPE .... to select tape side (back or front) in tape deck 2 only.
for CLOCK ..... to set the minute (on the system only).

20 MIC LEVEL
– to adjust the mixing level for karaoke or microphone recording.

21 MIC
– to connect microphone jack.

22 VOLUME
– to increase or decrease the volume.

23 DYNAMIC BASS BOOST (DBB)
– to select a bass boost level or to switch off bass boost.

24 OPEN
– to open tape deck 2.

25 TAPE DECK 2

26 TAPE DECK 1

27 OPEN
– to open tape deck 1.

28 REPEAT
– to repeat a CD track, a disc, or all available discs.

29 MUTE
– to switch off the sound temporarily.

English

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30 **BALANCE L/R**
– to balance the sound level of the Front Left and Right speakers.

31 **CENTER ＋/－**
– to adjust the sound level of the center speaker.

32 **REAR ＋/－**
– to adjust the sound level of the surround speakers.

33 **TEST TONE**
– to check the sound level of the Front Left, Front Right, Center and Surround speakers.

34 **SHUFFLE**
– to play all the available discs and their tracks in random order.

35 **SLEEP TIMER**
– to switch the system to standby mode at a selected time.

36 ⏻
– to switch the system to standby mode.

Notes for remote control:
– **First select the source you wish to control by pressing one of the source select keys on the remote control (e.g. CD, TUNER, etc.).**
– **Then select the desired function (▶ , |◀, ▶|, etc.).**

12
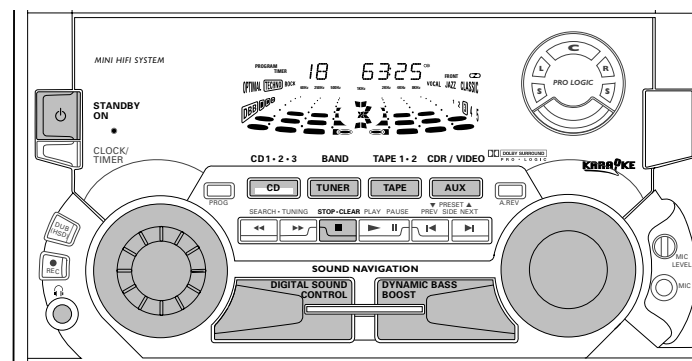
Important:
Before you operate the system, complete the preparation procedures.

Demonstration mode

The system has a demonstration mode that shows the various features offered by the system. **When the system is switched on for the first time, the demonstration mode will start automatically.**

Notes:
– *During the demonstration, if you press any source (or standby-on) button, the system will switch to the respective mode (or standby).*
– *When the system is switched to standby mode, the demonstration will resume 5 seconds later.*

To stop the demonstration mode
● Press and hold ■ *(on the system only)* for **5 seconds** when the system is in demonstration mode.
→ The demonstration will stop.
→ "DEMO OFF" is displayed.
→ The system will switch to standby mode.
→ About five seconds later, the system will go into an energy saving mode (< 2 watts). The low power STANDBY ON LED will be lit.

Notes:
– *When the system is switched on from the main power outlet, the CD carousel tray may open and close again to initialize the set.*

– *Even though the AC power cord is removed from and reconnected to the wall socket, the demonstration will remain off until it is switched on again.*

To start the demonstration mode
• Press and hold ■ *(on the system only)* for **5 seconds** when the system is in standby mode.
→ The demonstration will begin.

Easy Set

EASY SET allows you to store all available radio stations automatically.

• Press and hold **STANDBY ON** *(on the system only)* for **5 seconds**; when the system is in standby or demonstration mode.
→ "*EASY SET*" will be displayed, and followed by "*TUNER*" and then "*AUTO*".
→ EASY SET will start searching for all radio on FM band and then followed by radio stations on MW band.
→ All available radio stations with sufficient signal strength will be stored. Up to 40 presets may be stored.

Notes:
– *EASY SET will start with the FM band, if there are still presets available, the system will continue to store the MW band.*
– *When EASY SET is used, all previously stored radio stations will be replaced.*
– *The last preset radio station will appear on the display when EASY SET is completed.*

Switching the system ON

• Press **CD**, **TUNER**, **TAPE** or **AUX**.

You can also switch on the system by pressing any one of the CD DIRECT PLAY buttons.

Switching the system to standby mode

• Press **STANDBY ON** or ⏻ on the remote control.
→ The system will switch to standby mode.
→ About five seconds later, the system will go into an energy saving mode if the demonstration mode has been disabled.

Selecting the Source

• Press the respective source selection button: **CD**, **TUNER**, **TAPE** or **AUX**.
→ The display indicates the selected source.

Note:
– *For an external source, make sure you have connected the audio left and right OUT terminals of the external equipment (TV, VCR, Laser Disc player, DVD player or CD Recorder) to the AUX/ CDR IN terminals.*

Selecting the Equalizer Display

You can select the desired equalizer display for the system. You must not press the DSC button on the system before using the JOG control.

• Adjust the JOG control to select the desired Equalizer Display, NORMAL, TOP DOWN, or NITE MODE.
→ The selected display will be shown.

NORMAL Display
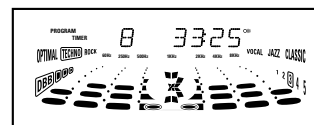
TOP DOWN Display
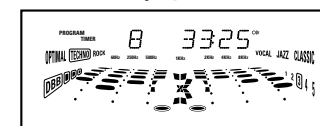
NITE MODE Display

Note:
– *In NITE MODE, all lights will be switched off and the display brightness will be dimmed.*

English

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Sound Control

VOLUME ADJUSTMENT

Adjust **VOLUME** to increase or decrease the sound level.

For Personal Listening
Connect the headphones plug to the 🎧 socket at the front of the system. The speakers will be muted.

DIGITAL SOUND CONTROL (DSC)

The DSC feature enables you to adjust the system to suit your type of music.

- Press **DIGITAL SOUND CONTROL (DSC)** to select OPTIMAL, CLASSIC, TECHNO, JAZZ, ROCK or VOCAL.
  → The selected digital sound is encircled.
  → "OPTIMAL X,CLASSIC, TECHNO X,JAZZ X, ROCK X or VOCAL X" will be displayed. "X" is the pre-selected level.

With the JOG control, you can change the level of any DSC setting except CLASSIC.

- First select the DSC feature, then adjust the JOG control until the desired digital sound setting level is reached.
  → The digital sound setting level will increase or decrease between level 1 and 5.

Note:
– For neutral setting, select CLASSIC and switch off DBB.

DYNAMIC BASS BOOST (DBB)
There are three DBB settings to enhance the bass response.

- Press **DBB** briefly to select a bass boost level.
  → The respective DBB level will be encircled and lit.
  → "BEAT", "PUNCH" or "BLAST" will be displayed.

To switch off DBB
- Press **DBB** briefly until "DBB OFF" is displayed.

Note:
– Some CDs or tapes might be recorded in high modulation, which causes a distortion at high volume. If this occurs, switch off DBB or reduce the volume.

Automatic DSC-DBB selection
The best DBB setting is generated automatically for each DSC selection. You can manually select the DBB setting that best suits your listening environment.

MUTE (only on remote control)
This feature allows you to temporarily switch off the sound without switching off the system when you require a moment of silence.

- Press **MUTE** on the remote control to switch off the sound.
  → "MUTE" will be displayed.
- Press **MUTE** again on the remote control or increase the **VOLUME** level to switch on the sound.

14
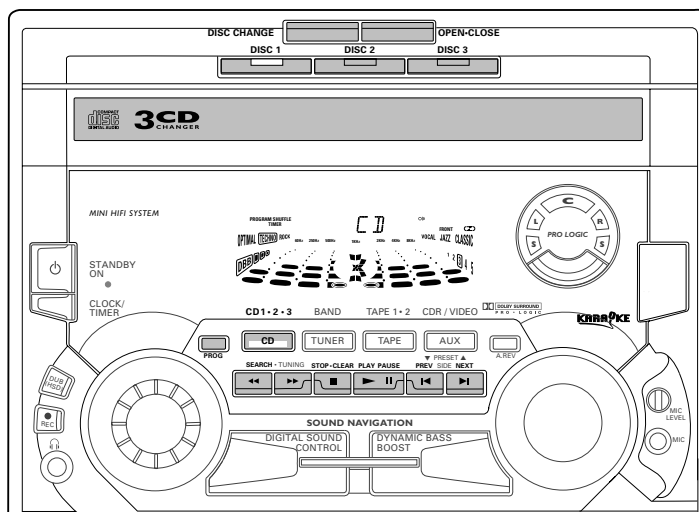
Warning!
1) This system is designed for conventional CDs. Do not use any accessories such as disc stabilizer rings or CD treatment sheets, etc., which may damage the CD mechanism.
2) Do not load more than one disc into each tray.
3) When the CD changer is loaded with CDs, do not turn over or shake the system. This may jam the changer.

You may load three discs in the CD changer for continuous playback without interruption.

Discs for playback

This system can play all digital audio CD, finalized digital audio CD-Recordable and finalized digital audio CD-Rewritable format discs.

Loading the CD Changer

1 Press **CD** to select CD mode.
2 Press **OPEN•CLOSE**.
  → The CD carousel tray slides out.
3 Load a CD with the printed side up in the right tray.
• You can load another disc in the left tray.
• To load the third disc, press the **DISC CHANGE** button.
  → The CD carousel will rotate until the empty tray is ready for loading.
4 Press **OPEN•CLOSE** to close the CD carousel tray.
  → The total number of tracks and the playing time of the selected disc appear on the display.

Note:
– To ensure good system performance, wait until the CD changer completely reads the disc(s) before proceeding.

CD Direct Play

• You can play a CD directly by pressing the **DISC 1**, **DISC 2** or **DISC 3** button. The CD player will stop at the end of playback of the selected disc.
  → A lit button indicates that a disc is loaded in the disc tray.

Playing a CD

1 Press ► to start playback.
  → The disc tray, track number and elapsed playing time of the current track appear on the display.
• To interrupt playback, press ▋▋.
  → The playing time flashes.
• To resume playback, press ► again.
2 To stop playback, press ■.

Note:
– All the available discs will play once, then stop.

Disc Change

You can change the outer two discs while the third inner disc is stopped or is playing.

1 Press **DISC CHANGE**.
→ The CD carousel tray slides out.
2 Replace the discs in the left and right disc trays.
• If you wish to change the inner disc during playback, press **DISC CHANGE** again.
→ "*DISC CHANGE*" will be displayed.
→ The CD will stop playing.
→ The CD carousel tray will close to retrieve the inner CD and then open again with the inner CD accessible.
3 Press **OPEN•CLOSE** to close the CD carousel tray.

Selecting a desired track

Selecting a desired track when playback is stopped
1 Press |◀ or ▶| until the desired track appears on the display.
2 Press ▶ to start playback.
→ The selected track number and elapsed playing time appear on the display.

Selecting a desired track during playback
• Press |◀ or ▶| until the desired track appears on the display.
→ The selected track number and elapsed playing time appear on the display.
• If you press |◀ once it will skip to the beginning of the current track and play the track again.

Note:
– *Pressing |◀ during shuffling can only skip to the beginning of the current track.*

Searching for a particular passage during playback

• Press and hold ◀◀ or ▶▶ until the desired passage is located.
→ The volume will be reduced.
• Play returns to normal when ◀◀ or ▶▶ is released.

Programming Tracks

Programming tracks of a loaded CD is possible when playback is stopped. The display will indicate the total tracks stored in the program. Up to 40 tracks can be stored in the memory in any order. When 40 tracks are stored and you attempt to store another track, the display will show "*FULL*".

1 Load the desired discs in the disc trays.
2 Press **PROG** to start programming.
→ The **PROGRAM** starts flashing.
→ It will cancel any previously selected repeat mode.
3 Press the **CD** (CD 1•2•3) or **DISC 1/2/3** button to select the disc.
4 Press |◀ or ▶| to select the desired track.
5 Press **PROG** to store the track.
• Repeat steps **3** to **5** to store other discs and tracks.
6 Press ■ once to end programming.
→ The total number of tracks programmed and total playing time appear on the display.

Notes:
– *If the total playing time is more than "99:59" or if one of the programmed tracks has a number greater than 30, then "– – : – – " appears on the display instead of the total playing time.*
– *If the system is reading the disc, programming is not possible, "READING" will be displayed and followed by "DISC X". "X" is the current read disc number.*
– *During programming, if no button is pressed within 20 seconds, the system will exit program mode automatically.*

Reviewing the program

Reviewing of the program is possible only when playback is stopped.
1 Press |◀ or ▶| repeatedly to review the programmed tracks.
2 Press ■ once to exit review mode.

Playing the program

1 Press ▶ to start program playback.
→ "*PLAY PROGRAM*" will be displayed.
→ The track number and elapsed playing time of the current track will appear on the display.
• If you press **REPEAT** during program playback, the current track or all programmed tracks will be played repeatedly.
→ "*TRACK*" or "*PROGRAM*" will be displayed.
→ The **REPEAT** and **PROGRAM** appear on the display.
2 Press ■ to stop program playback.

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Notes:
– *If you press any of the CD DIRECT PLAY buttons, the system will play the selected disc or track and the stored program will be ignored temporarily. The PROGRAM display also will disappear temporarily from the display. It will reappear when playback of the selected disc ends.*
– *REPEAT DISC mode is not available when program playback begins.*

Erasing the program *(when playback is stopped)*

• Press ■ .
   → "*PROGRAM CLEARED*" will be displayed.

Note:
– *The program will be erased when the system is disconnected from the power supply or when the CD carousel tray is opened.*

Shuffle *(only on remote control)*

In shuffle mode, the system plays all the available discs and their tracks in random order. Shuffle may be used also when tracks are programmed.

To shuffle all the discs and tracks
1 Press **SHUFFLE**.
   → "*SHUFFLE*" will be displayed.
   → The **SHUFFLE**, the disc and the track selected at random appear on the display.
• The discs and the tracks will be played in random order until you press ■ .
• If you press **REPEAT** during shuffling, the current track or all available discs will be played repeatedly.
   → "*TRACK*" or "*ALL*" will be displayed.
   → The **REPEAT** and **SHUFFLE** appear on the display.
2 Press **SHUFFLE** again to resume normal playback.
   → The **SHUFFLE** disappears from the display.

Note:
– *REPEAT DISC mode is not available when shuffle is selected.*

Repeat *(only on remote control)*

You can play the current track, a disc or all available discs repeatedly.

1 Press **REPEAT** on the remote control to select the various repeat modes.
   → "*TRACK*", "*DISC*", "*ALL*" or "*OFF*" will be displayed.
   → The **REPEAT** appears on the display.
• The selected track, selected disc or all available discs will now be played repeatedly until you press ■ .
2 Press **REPEAT** until the "*OFF*" mode is displayed to resume normal playback.
   → The **REPEAT** disappears from the display.

Notes:
– *REPEAT DISC mode is not available during program play or shuffle mode.*
– *You can also repeat shuffling a program.*
   → "*TRACK*" *or* "*PROGRAM*" *will be displayed.*
   → *The* **REPEAT**, **PROGRAM** *and* **SHUFFLE** *appear on the display.*

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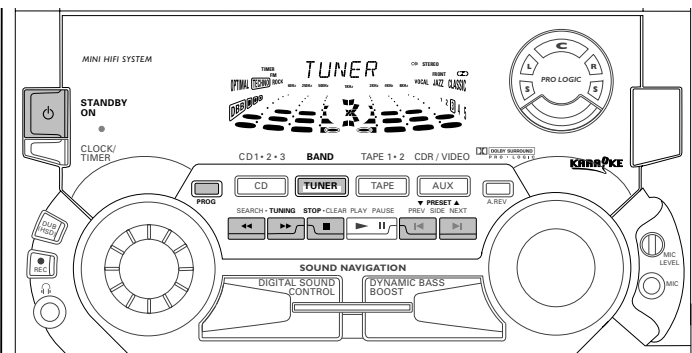
TUNER

Note:
– *For 'EASY SET' feature, please refer to page 13.*

Tuning to radio stations

1   Press **TUNER** (BAND) to select TUNER mode.
   → "*TUNER*" will be displayed. A few seconds later, the current radio frequency will be displayed.
2   Press **TUNER** (BAND) again to select the desired waveband : FM or MW.
3   Press ◄◄ or ►► for more than one second, then release.
   → The display will show "*SEARCH*" until a radio station with sufficient signal strength is found.

● Repeat this procedure until the desired station is reached.
● To tune to a weak station, briefly press ◄◄ or ►► repeatedly until the display shows the desired frequency and/or when the best reception has been obtained.

Storing Preset Stations

You can store up to 40 radio stations in the memory. When a preset radio station is selected, the preset number appears next to the frequency on the display.

Automatic programming

1   Press **TUNER** (BAND).
2   Press **PROG** for more than one second.
   → The **PROGRAM** starts flashing and "*AUTO*" will be displayed.

→ The system will search for every available radio station in the FM waveband first, then search the MW waveband.
→ All available stations will be stored automatically. The frequency and preset number will be displayed briefly.
→ The system will stop searching when all the available radio stations are stored or when the memory for 40 preset radio stations is used.
→ The system will remain tuned to the last stored preset radio station.

Notes:
– *You can cancel the automatic programming by pressing PROG or ■ (on the system only).*
– *If you want to reserve a section of preset numbers, for example preset numbers 1 to 9, select preset 10 before starting automatic programming, only the preset numbers 10 to 40 will be programmed.*

Manual programming

1   Press **TUNER** (BAND).
2   Press **TUNER** (BAND) again to select the desired waveband : FM or MW.
3   Press **PROG** for less than one second.
   → The **PROGRAM** starts flashing.
   → The next available preset number will be displayed for selection.

4   Press ◄◄ or ►► to tune to the desired frequency.
● If you wish to store the radio station to another preset number, press ▼ or ▲ to select the desired preset number.
5   Press **PROG** again.
   → The **PROGRAM** disappears and the radio station will be stored.

● Repeat *steps 3 – 5* to store other preset radio stations.

Notes:
– *When 40 radio stations are stored and you attempt to store another radio station, the display will show "FULL". If you want to change an existing preset number, repeat steps 3 – 5.*
– *You can cancel manual programming by pressing ■ (on the system only).*
– *During programming, if no button is pressed within 20 seconds, the system will exit program mode automatically.*

Tuning to Preset Radio Stations

● Press ▼ or ▲ to select the desired preset number.
   → The preset number, radio frequency, and waveband appear on the display.

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Changing the MW tuning grid

(not available for version /30)

The frequency step can be changed if necessary. In North and South America, the frequency step between adjacent channels in the MW band is 10 kHz. In other parts of the world, it is 9 kHz. The frequency step presetted in the factory is 9 kHz.

For MW band
To change from 9 kHz to 10 kHz or vice versa

Changing of tuning grid will erase all previously stored preset stations.

1 Disconnect the system from the AC power supply *(pull out the AC power cord)*.
2 Press **TUNER** and **TUNING** ▶▶ depressed while reconnecting the system to the AC power supply.
→ Display will show "GRID 9" or "GRID 10".

Notes:
– *GRID 9 indicates that the tuning grid is in step of 9 kHz in MW band. GRID 10 indicates that the tuning grid is in step of 10 kHz in MW band.*
– *FM tuning grid will also be changed from 50 kHz to 100 kHz or vice versa. All preset radio stations will also be erased.*
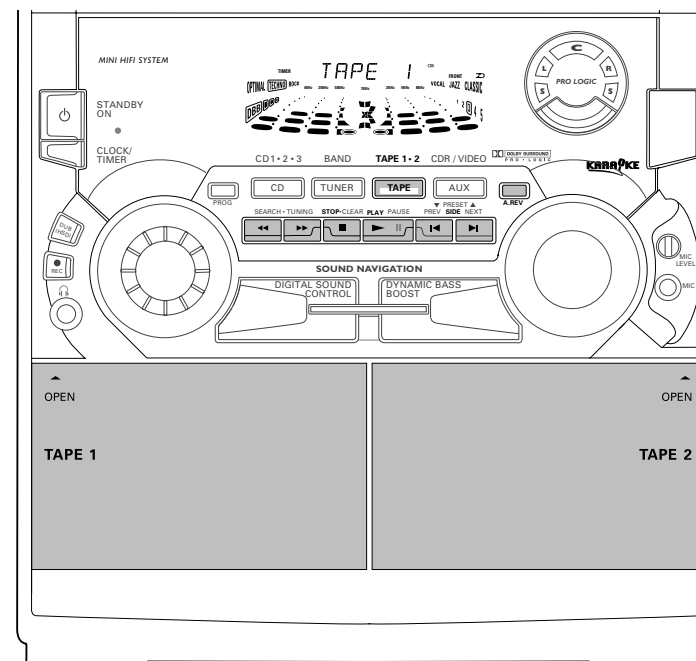
Loading a tape

1 Press **OPEN**.
2 The tape deck door opens.
3 Load the tape with the open side downward and the full spool to the left.
4 Close the tape deck door.

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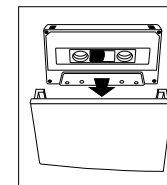
Tape Side *(only on tape deck 2)*

- Press |◀ or ▶| to select the tape side for playback or recording.
  → The **BACK** or **FRONT** appear on the display, depending on the tape side selected.
  → "T2 ⟨⟨⟨" or "T2 ⟩⟩⟩" will be displayed.
  → When recording, the **BACK** or **FRONT** display will be flashing.

Auto Reverse Playback *(only on tape deck 2)*

- Press **A. REV** to select the different playback modes.

  ⊐ ...... to record or playback on one side of the tape. The tape stops at the end of one side.

  ⊃ ..... to record or playback on both sides of the tape. The tape then stops.

  ⊂⊃ ... to playback continuously on both sides of the tape up to a maximum of 10 times per side unless you press ■ .

Tape Playback

1 Press **TAPE** (TAPE 1•2) to select TAPE mode.
  → "TAPE 1" or "TAPE 2" will be displayed, and followed by "T 1 or T2" with "⟨⟨⟨ or ⟩⟩⟩".
- Press **TAPE** (TAPE 1•2) again to select either tape deck 1 or tape deck 2.
2 Load the tape into the desired tape deck.
3 Press ▶ to start playback.
- If tape 1 is selected for playback;
  → "T 1" with "⟩" scrolling right will be displayed.
- If tape 2 is selected for playback;
  → "T2" with "⟨ or ⟩" scrolling left or right will be displayed depending on the tape side selected.
3a(for playback on tape deck 2 only)
- Press |◀ or ▶| to select tape side *(see Tape Side)*.
- Press **A. REV** to select the different type of playback mode *(see Auto Reverse Playback)*.
4 Press ■ to end playback.
  → "T 1 or T2" with "⟨⟨⟨ or ⟩⟩⟩" will be displayed.

Rewind/Fast Forward

When playback is stopped
1 You can rewind or fast forward the tape by pressing ◀◀ or ▶▶ respectively.
  → If rewinding, "T 1 ⟨ or T2 ⟨" with "⟨" scrolling left will be displayed.
  → If fast forwarding, "T 1 ⟩ or T2 ⟩" with "⟩" scrolling right will be displayed
  → The tape will stop automatically at the end of the rewinding or fast forwarding.
2 Press ■ to stop rewinding or fast forwarding.

During playback
- Press and hold ◀◀ or ▶▶ until the desired passage is located.
  → "T 1 or T2" with "⟨⟨ or ⟩⟩" scrolling left or right will be displayed depending on which button is pressed.
  → During searching, the sound is reduced to a low volume.
  → When you release ◀◀ or ▶▶, the tape continues playing.

Notes:
– During rewinding or fast forwarding of a tape, it is also possible to select another source (e.g. CD, TUNER, or AUX).
– Before playing a tape, check and tighten slack tape with a pencil. Slack tape may get jammed or may burst in the mechanism.
– C-120 tape is extremely thin and is easily deformed or damaged. It is not recommended for use in this system.
– Store the tapes at room temperature and do not put them too close to a magnetic field (for example, a transformer, TV, or speaker).
.
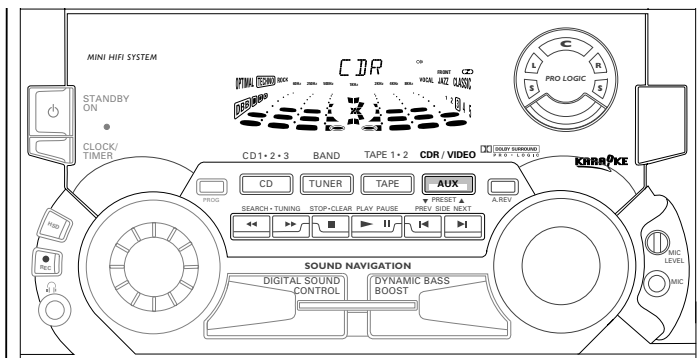
Selecting External Equipment

If you have connected the audio out terminals of the external equipment (TV, VCR, Laser Disc player, DVD player, or CD Recorder) to the AUX/CDR IN terminals, you can hear the enhanced sound from the system.

1 Press **AUX** to select CDR mode.
→ "CDR" will be displayed.
2 Press **AUX** again to select the external (normal AUX) mode.
→ "AUX" will be displayed.

Notes:
– There are two Auxiliary modes:
i. the normal AUX mode.
ii. the CDR mode, where the LINE OUT of this mini system is muted. You will not be able to record or listen to the sound from the LINE OUT.
– You are advised not to listen to and record from the same source simultaneously.
– All the sound control features (e.g. DSC, DBB, etc.) are available for selection.
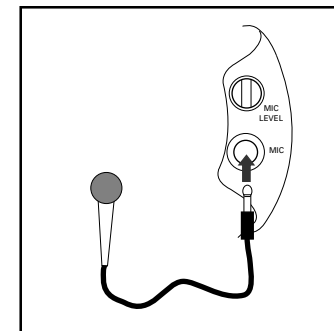
Microphone Mixing

1 Set the **MIC LEVEL** control to the minimum level to prevent acoustic feedback (e.g. a loud howling sound) before you connect the microphone.
2 Connect a microphone to the **MIC** socket.
3 Press **CD**, **TUNER**, **TAPE** or **AUX**.
4 Play the selected source.
5 Adjust the volume level with **VOLUME** control.
6 Adjust the **MIC LEVEL** control to the mixing level that you want.
7 Start singing or talking through the microphone.

Note:
– Keep the mic away from the speakers to prevent howling.

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RECORDING

MINI HIFI SYSTEM

STANDBY
ON

CLOCK/
TIMER

CD 1 · 2 · 3   BAND   TAPE 1 · 2   CDR / VIDEO

PROGRAM   REC   DUB   CD DECK

OPTIMAL RECORD DECK

PRO LOGIC

KARAOKE

DOLBY SURROUND
PRO · LOGIC

CD   TUNER   TAPE   AUX   A.REV

PROG

SEARCH · TUNING   STOP·CLEAR   PLAY   PAUSE   ▼ PRESET ▲
PREV SIDE NEXT

DUB
HIGH/
LOW

REC
HIGH/
LOW

SOUND NAVIGATION

DIGITAL SOUND
CONTROL

DYNAMIC BASS
BOOST

MIC.
LEVEL

MIC

OPEN

TAPE 1

OPEN

TAPE 2
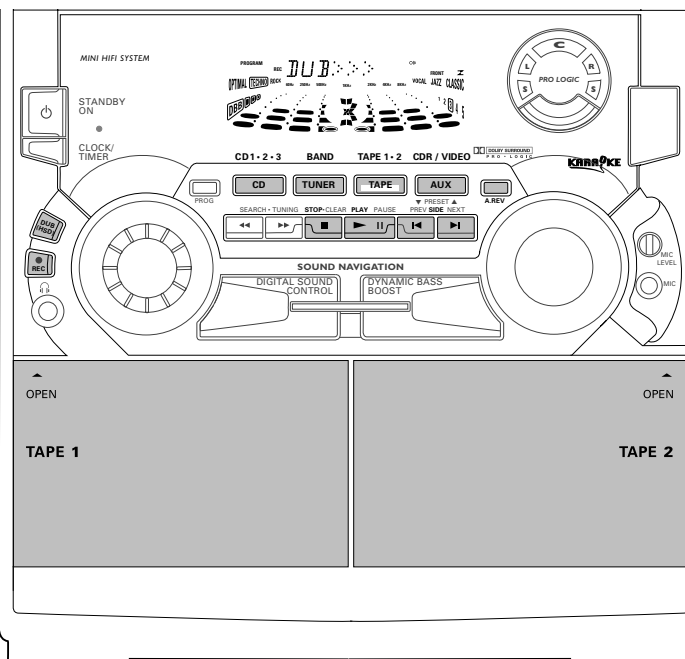
SWITCH OFF DOLBY PRO LOGIC WHEN RECORDING

Notes:

– *It is not possible to change tape side during recording.*

– *If you do not intend to record via the microphone, unplug the microphone to avoid accidental mixing with other recording source.*

– *For recording, use only tape of IEC type I (normal tape) or IEC type II (CrO$_2$).*

– *The tape is secured at both ends with leader tape. At the beginning and end of tape, nothing will be recorded for six to seven seconds.*

– *The recording level is set automatically, regardless of the position of Volume, DBB or DSC.*

– *To prevent accidental recording, break out the tab on the left shoulder of the tape side you want to protect.*

– *If "CHECK TAPE" is displayed, the protection tab has been broken. Put a piece of clear adhesive tape over the opening. Do not cover the CrO$_2$ tape detection hole when covering the tab opening.*

Recording from other sources
(only on tape deck 2)

1 Press **TAPE** (TAPE 1●2) to select tape deck 2.

2 Load a blank tape into tape deck 2 with the open side downward.

3 Press � or ▶▶▌ to select the recording tape side *(see Tape Side under TAPE section).*

4 Press **CD**, **TUNER** or **AUX**.

• Start playback of the selected source.

5 Press **REC** to start recording.
→ The **REC** starts flashing.

6 Press ■ to stop recording.

Notes:
– *Only ⊐ or ⊐ mode is available during recording .*

– *During recording, it is not possible to listen to another source.*

Dubbing tapes *(from tape deck 1 to tape deck 2)*

1 Press **TAPE** (TAPE 1●2) to select tape deck 2.

2 Load the prerecorded tape into tape deck 1 with full spool to the left and a blank tape into tape deck 2 with full spool aside.

3 Press � or ▶▶▌ to select the recording tape side *(see Tape Side under TAPE section).*

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4 Press **DUB (HSD)** *once* for normal speed dubbing or *twice* *(within 2 seconds)* for high speed dubbing.
→ "*NORMAL*" (normal speed) or "*FAST*" (high speed) will be displayed, followed by "*DUB*" with "< or >" scrolling left or right depending on the tape side selected.
→ The **HSD** appears on the display during high speed dubbing.
● Dubbing will start immediately.
→ The **REC** starts flashing.
5 Press ■ to stop dubbing.

Notes:
– *Only ⊐ mode is available during dubbing.*
– *At the end of side A, flip the tapes to side B and repeat the procedure.*
– *Dubbing of tapes is only possible from tape deck 1 to tape deck 2.*
– *To ensure good dubbing, use tapes of the same length.*
– *During high speed dubbing in Tape mode, the sound is reduced to a low volume.*
– *You can listen to another source while dubbing.*

CD Synchro Start Recording

1 Load a blank tape into tape deck 2 and a disc into a disc tray.
2 Press **CD** to select CD mode.
● You can program the tracks in the order you want them to be recorded (see Programming Tracks). If not, select the disc by pressing **CD** (CD 1●2●3) and the tracks are recorded according to the order on the selected disc.
3 Press **REC** to start recording.
→ The **REC** starts flashing.
● CD will start playback automatically.
4 Press ■ to stop recording.

Recording the mixed sound / One Touch Recording

● During microphone mixing, you can record the mixed sound on a tape in tape deck 2 except dubbing mode.
● For One Touch Recording, as soon as you press **REC**, the current source (CD, TUNER or AUX) will be recorded on tape deck 2.

1 Load a blank tape in tape deck 2.
2 Press **REC** to start recording.
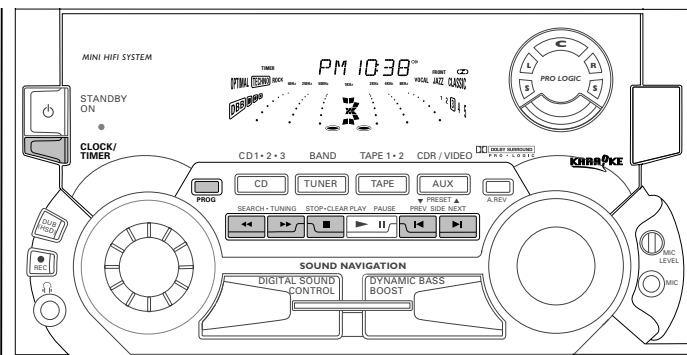→ The **REC** starts flashing.
3 Press ■ to stop recording.

Note:
– *When you press RECORD while in TAPE mode, "SELECT SOURCE" will be displayed. One Touch Recording is not possible in TAPE mode.*

Digital Recording via Digital Out

For CD digital recording, please refer to the Instructions Manual of the CD Recorder, digital audio equipment, etc.

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English

View Clock

You can view the clock (if it is set) if the system is in Standby mode or when any sound source is selected (CD, TUNER, etc.). The clock will be displayed for about 7 seconds.

- Press **CLOCK/TIMER** briefly.
  → "PM 10:38 or 22:38" (the current time) will be displayed depending on whether you have selected 12- or 24-hour mode.
  → "- -:- -" will be displayed if the clock is not set.

Note:
- *When the system goes into low power standby mode, the clock setting will not be displayed.*

Clock Setting

The clock can be set in either 12- or 24-hour mode, e.g. "AM 12:00" or "00:00". Before setting the clock, you must be in the View Clock mode.

1 Press **CLOCK/TIMER** to select clock mode.
2 Press **PROG** *(on the system only)* to select 12- and 24- hour mode.
  → If 12-hour mode is selected, "AM 12:00" starts flashing.
  → If 24-hour mode is selected, "00:00" starts flashing.
3 Set the hour with ◄◄ or ►► on the system.
4 Set the minute with I◄ or ►I on the system.

5 Press **CLOCK/TIMER** again to store the setting.
  → The clock starts.

- To exit without storing the setting, press ■ on the system

Notes:
- *During clock setting, if no button is pressed within 90 seconds, the system will exit clock setting mode automatically.*
- *When a power interruption occurs, the clock setting is erased.*

Timer Setting

- The system can switch on to CD, TUNER, or TAPE 2 mode automatically at a preset time. It can serve as an alarm to wake you up.
- Before setting the timer, make sure the clock is set correctly.
- The timer will always be switched on once it is set.
- **The volume of the timer will increase from the minimum level until the volume level before the set is switched to standby mode.**

1 Press and hold **CLOCK/TIMER** for more than *2 seconds* to select timer mode.
  → " AM 12:00" or "00:00" or the last timer setting starts flashing depending on whether you have selected 12- or 24-hour mode.
  → The **TIMER** starts flashing.
  → The selected source is lit while other available sources are flashing.
2 Press **CD**, **TUNER** or **TAPE** to select the desired source.
- Before selecting CD or TAPE, make sure a CD or tape is loaded in the CD tray or tape deck 2.
3 Press ◄◄ or ►► on the system to set the hour for the timer to start.
4 Press I◄ or ►I on the system to set the minute for the timer to start.

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5 Press **CLOCK/TIMER** to store the start time.
→ The timer is now set.
→ The TIMER remains on the display.
● At the preset time, the timer will be activated.
→ The selected source will be played.

Notes:
– *During timer setting, if no button is pressed within 90 seconds, the system will exit timer setting mode automatically.*
– *If the source selected is TUNER, the last tuned frequency will be switched on.*
– *If the source selected is CD, playback will begin with the first track of the selected disc or program. If the CD trays are empty, TUNER will be selected instead.*
– *If the source selected is TAPE, and if the preset time is reached during high speed dubbing, the TUNER will be selected instead.*
– *The timer will not activate if a recording is in progress.*

To switch off the TIMER
1 Press and hold **CLOCK/TIMER** for more than *2 seconds*.
2 Press ■ on the system to cancel the timer.
→ The timer is now switched off.
→ The display will show "OFF" and the TIMER disappears.

To start the TIMER again *(for the same preset time and source)*
1 Press and hold **CLOCK/TIMER** for more than *2 seconds*.
2 Press **CLOCK/TIMER** again to store the start time.
→ The timer is now on.
→ The TIMER appears on the display.

English

Sleep Timer *(only on remote control)*

This feature allows you to select a length of time after which the system will switch to the standby mode automatically.

1 Press **SLEEP TIMER** on the remote control repeatedly to select a period of time.
→ The selections are as follows (time in minutes):
60 → 45 → 30 → 15 → OFF → 60 ...
→ "SLEEP XX" or "OFF" will be displayed. "XX" is the time in minutes.
2 When you reach the desired length of time, stop pressing the **SLEEP TIMER** button.
→ After this amount of time passes, the system will switch to the standby mode.

To switch off the Sleep Timer
● Press **SLEEP TIMER** repeatedly until "OFF" is displayed, or press the **STANDBY ON** button.

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Specifications

AMPLIFIER

Output power .... 2200 W PMPO
  DPL Mode
    Left/Right Channel .... 2 x 75 W RMS[1]
    Center Channel .... 40 W RMS, 12 Ω
    Surround Channel .... 2 x 20 W RMS, 6 Ω
  Stereo mode .... 2 x 75 W, 40 W, 2 x 20 W RMS
Signal-to-noise ratio .... $\geq$ 75 dBA (IEC)
Frequency response .... 40 – 20000 Hz, $\pm$ 3 dB
Input sensitivity
  AUX/CDR In .... 500 mV
  Microphone .... 2.5 mV
Output
  Speakers .... $\geq$ 6 Ω
  Center Speaker .... $\geq$ 12 Ω
  SurroundSpeakers .... $\geq$ 6 Ω
  Headphones .... 32 Ω – 1000 Ω
  Subwoofer Out .... 1.5 V $\pm$2dB, > 22000 Ω
  Line Out .... 500 mV $\pm$2dB, > 22000 Ω
  Digital Out .... IEC 958, 44.1 kHz

(1) (6 Ω, 1 kHz, 10% THD)

CD PLAYER

Number of programmable tracks 40
Frequency response .... 40 – 20000 Hz
Signal-to-noise ratio .... $\geq$ 76 dBA
Channel separation .... $\geq$ 79 dB (1 kHz)
Total harmonic distortion .... < 0.02% (1 kHz)

TUNER

FM wave range .... 87.5 – 108 MHz
MW wave range (9 kHz) .... 531 – 1602 kHz
MW wave range (10 kHz) .... 530 – 1700 kHz
Tuning grid .... 9/10 kHz
Number of presets 40
Antenna
  FM .... 75 Ω wire
  AM .... Loop antenna

TAPE DECK

Frequency response
  CrO_2 tape (type II) .... 60 – 15000 Hz (5 dB)
  Normal tape (type I) .... 60 – 15000 Hz (5 dB)
Signal-to-noise ratio
  CrO_2 tape (type II) .... $\geq$ 50 dBA
  Normal tape (type I) .... $\geq$ 47 dBA
Wow and flutter .... $\leq$ 0.4% DIN

SPEAKERS

System ....   3-way shielded; double port bass reflex
Impedance .... 6 Ω
Woofer .... 1 x 6.5"
Tweeter .... 1 x 2.5"
Polydome Tweeter .... 2 x 1"
Dimensions (w x h x d) .... 240 x 310 x 315 (mm)
Weight .... 4.2 kg each

CENTER SPEAKER

System .... shielded bass reflex
Impedance .... 12 Ω
Speaker Driver .... 1 x 4" full range
Dimensions (w x h x d) .... 260 x 140 x 240 (mm)
Weight .... 1.5 kg

SURROUND SPEAKERS

System .... closed satellite
Impedance .... 6 Ω
Speaker Driver .... 1 x 4" full range
Dimensions (w x h x d) .... 234 x 103 x 224 (mm)
Weight .... 0.82 kg each

GENERAL INFORMATION

Material/finish .... Polystyrene/Metal
AC Power
  For Version /21-21M .... 110 – 127 / 220 – 240 V;
  .... 50/60 Hz Switchable
  For Version /30 .... 230 – 240 V; 50 Hz
Power Consumption
  Active .... 145 W
  Standby .... < 20 W
  Standby (energy saving mode) .... < 2 W
Dimensions (w x h x d) .... 265 x 310 x 390 (mm)
Weight (without speakers) .... 8.8 kg

Subject to modification

MAINTENANCE

Maintenance

Cleaning the Cabinet
- Use a soft cloth slightly moistened with a mild detergent solution. Do not use a solution containing alcohol, spirits, ammonia or abrasives.

Cleaning Discs
- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents such as benzine, thinner, commercially available cleaners, or antistatic spray intended for analog records.

Cleaning the CD lens
- After prolonged use, dirt or dust may accumulate at the CD lens. To ensure good playback quality, clean the CD lens with Philips CD Lens Cleaner or any commercially available cleaner. Follow the instructions supplied with cleaner.

Cleaning the Heads and the Tape Paths
- To ensure good recording and playback quality, clean the heads, the capstan(s), and pressure roller(s) after every 50 hours of tape operation.
- Use a cotton swab slightly moistened with cleaning fluid or alcohol.
- You can also clean the heads by playing a cleaning tape once.

Demagnetizing the heads
- Use a demagnetizing tape available at your dealer.

TROUBLESHOOTING

Warning! Under no circumstances should you try to repair the set yourself as this will invalidate the guarantee. Do not open the set as there is a risk of electric shock.

- If a fault occurs, check the points listed below before taking the system for repair.
- Should any problems persist after you have made these checks, consult your nearest dealer or service center.

CD Player Operation

"*NO DISC*" is displayed.
- The disc is inserted upside down.
- → *Place CD with printed side up.*
- Moisture condensation at the lens.
- → *Wait until lens has adjusted to normal room temperature.*
- There is no disc in the CD tray.
- → *Insert a CD.*
- The CD is dirty, badly scratched or warped.
- → *Clean or replace the CD.*
- The CD lens is dirty or dusty.
- → *See section under Maintenance (page 27).*

"*DISC NOT FINALIZED*" is displayed.
- The CD-RW or CD-R disc is not properly recorded for use with a standard CD player.
- → *Read the instruction booklet of your CD-Rewritable or CD-Recorder on how to finalize a recording.*
- The CD is badly scratched or dirty.
- → *Replace or clean CD.*

Radio Reception

Poor radio reception.
- The signal is too weak.
- → *Adjust the antenna.*
- → *Connect an external antenna for better reception.*
- The TV or VCR is too close to the stereo system.
- → *Separate the stereo system from the TV or VCR.*

Cannot tune to station.
- Wrong tuning grid.
- → *Switch to the correct tuning grid.*

Tape Deck Operation

Recording or playback cannot be made or there is a decrease in audio level.
- Dirty tape heads, capstans or pressure rollers.
→ *See section on tape deck maintenance (page 27).*
- Magnetic build-up in the record/ playback head.
→ *Use demagnetizing tape.*

Tape deck door cannot open.
- Power failure or AC power plug disconnect from the wall outlet during tape playback.
→ *Reconnect the AC power plug and switch on the system again.*

Recorded material sounds strange.
- Tape was recorded in one of the Dolby Pro Logic modes.
→ *Switch off Dolby Pro Logic mode when recording.*

General

System does not react when any button is pressed.
- Electrostatic discharge.
→ *Press STANDBY ON to switch the system off. Remove the AC power plug from the wall outlet, then reconnect the power plug and switch on the system again.*

No or poor sound.
- Volume is not turned up.
→ *Adjust VOLUME.*
- The headphones are connected.
→ *Disconnect the headphones.*
- Speakers are not connected or are connected wrongly.
→ *Check that the speakers are connected correctly.*
→ *Make sure the stripped speaker wire is clamped.*

Reversed left and right sound.
- Speakers are connected wrongly.
→ *Check the speaker connections and location.*

Lack of bass sound or apparently imprecise physical location of musical instruments.
- Speakers are connected wrongly.
→ *Check the speaker connection for proper phasing, colored/black wires to colored/black terminals.*

Remote control has no effect on the system.
- Wrong source is selected.
→ *Select the source (CD, TUNER, etc.) before pressing the function button (▶ , ◀, ▶, etc.).*
- The distance to the system is too large.
→ *Reduce the distance.*
- Batteries are inserted incorrectly.
→ *Insert the batteries with their polarities (+/– signs) as indicated.*
- Batteries are exhausted.
→ *Replace the batteries.*

Timer is not working.
- Clock is not set.
→ *Set the clock.*
- Timer is not switched on.
→ *Press CLOCK/TIMER to switch on the timer.*
- Recording is in progress.
→ *Stop recording.*

Clock setting is erased.
- There was a power failure.
→ *Reset the clock.*

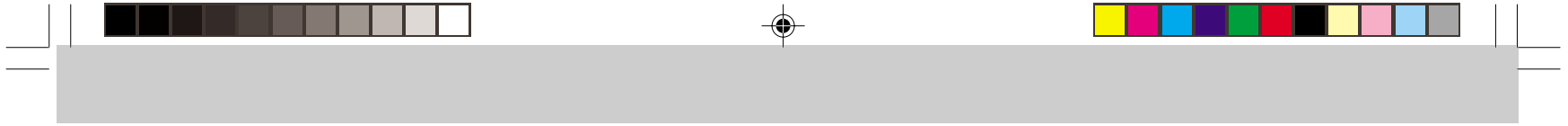**System displays features automatically; buttons flash continuously.**
- Demonstration mode is switched on.
→ *Press and hold ■ (on the system) for 5 seconds to switch off the demonstration.*

There is a howling sound at the external source.
- You hear feedback when you are listening in Aux mode.
→ *Press AUX to select CDR mode.*

All lighted buttons are not lit.
- Equalizer Display is switched on in NITE mode.
→ *Adjust JOG to select other Equalizer Display.*